

**Christian Science Monitor**

February 10, 2006, Friday

## **Can Bush make America more competitive in math and science?**

By: Linda Feldmann Staff writer of The Christian Science Monitor

Americans have heard the warnings for decades: The nation is in danger of falling behind other technological powerhouses in the world, posing a threat to its way of life. In the 1950s, it was the Soviet Union; in the 1980s, Japan. Now the big competitors are India and China.

President Bush's competitiveness initiative, outlined in his federal budget, would focus \$136 billion over 10 years on boosting research and education. Much of that cost would come in the form of tax incentives for research and development; the rest represents new funding, including a doubling of the budgets of three federal agencies focused on science and technology.

The education piece of Mr. Bush's plan seems relatively small - \$380 million in fiscal 2007 - but it is getting most of the attention. From that, \$90 million would go to boost the ranks of students taking Advanced Placement and International Baccalaureate classes in math, science, and foreign languages by training 70,000 additional teachers in those subject areas in high-poverty high schools.

Overall, Bush's AP Incentive Program aims to boost the number of students taking AP math and science exams from 380,000 today to 1.5 million in 2012.

In a nation that seems to have a cultural aversion to tackling "hard" subjects like math and science, can those numbers be achieved? And without the stark image of Sputnik - the Soviet satellite whose launch in 1957 caught the US by surprise - to spur a fear of national decline, will the nation rally to the "competitiveness" cause and push Congress to fund the plan?

After all, in earlier waves of national concern about competitiveness, education reform fell short and yet the US still leads the world in economic might and innovation, says Michael Petrilli, vice president of the Fordham Foundation, a school-reform think tank.

"But I think, as Tom Friedman argued in his bestselling book, the economy is fundamentally different today," Mr. Petrilli says. "If our kids are going to have an opportunity to have good-paying jobs and enjoy the lifestyle they're used to, they're going to have to be able to use their brains. By any measure, our students are falling behind the rest of the world, especially in math and science."

The recent growth in participation in the College Board's Advanced Placement Program provides cause for hope. On Tuesday, the program reported an increase in success by high school students in all 50 states and the District of Columbia in AP courses over the

past five years. The proportion of high school students passing AP exams - earning at least a 3 on a 5-point scale - has jumped from 10 percent to 14 percent since 2000.

Minority students remain underrepresented. Though African-Americans make up 13 percent of the high school population, they are 6 percent of AP test-takers. Native Americans make up 1 percent of students, but 0.5 percent of the AP population. The news is better for Latinos, who represent 13 percent of the student population and 13 percent of AP test-takers.

One constituency supportive of the president's education initiative is the business community, which fears that a future of unqualified American students will harm the bottom line. But some education analysts worry that - among the issues on business's plate, including tax cuts - education funding won't be high on the agenda when it comes time to lobby Congress.

"We are very willing to go to the mat on this," says Susan Traiman of the Education and Workforce Policy at the Business Roundtable. In the National Academy of Sciences report from last fall, which served as a blueprint for Bush's competitiveness initiative, the first recommendation centered on education, she notes.

"With the coming retirement of baby boomers who are in the science and engineering workforce, we need to make sure we have young people coming up behind them ready to enter those careers," Ms. Traiman says.

Education experts are also wondering whether Bush's first-term education initiative - No Child Left Behind (NCLB), which aims to improve the achievement of low performers - will work at cross-purposes with the American Competitiveness Initiative. The FY 2007 budget for the Department of Education took a big hit - a 5.5 percent reduction. Education Secretary Margaret Spellings maintains that the department can do both: raise the bottom and enhance achievement at the top. The budget would boost funding for NCLB by 4.6 percent.

Given the other education programs slated for abolition, many of them aimed at inner-city students, skepticism remains.

"I doubt whether most of this competitiveness stuff will be funded," says John Jennings of the nonprofit Center on Education Policy. "He's asking for so much less for education, and asking to eliminate so many popular ... programs. I find it hard to believe Congress will eliminate these programs and create new programs."